

Amendments to the Specification

Please insert the following new paragraphs, after paragraph [0033] and before the heading “Detailed Description of the Invention”:

[0033.1] FIG. 12 is a schematic diagram of a headset and a control box.

[0033.2] FIG. 13 is a diagram of an electrode assembly of the headset of FIG. 12

Please replace paragraph [0038], in its entirety, with the following amended paragraph:

[0038] An exemplary electrode 24, 24' may employ an active digital electrode approach for incorporation into the headset 10 to address the need for sensitivity, enhanced signal to noise performance, and economy, described in greater detail in the afore-mentioned patent application entitled “ACTIVE, MULTIPLEXED DIGITAL NEURO ELECTRODES FOR EEG, ECG, EMG APPLICATIONS”. For instance, as shown in FIGS. 11-12, and as shown and described in the afore-mentioned patent application entitled “ACTIVE, MULTIPLEXED DIGITAL NEURO ELECTRODES FOR EEG, ECG, EMG APPLICATIONS”, headset may include a plurality of electrode assemblies 200, each electrode assembly 200 comprising a respective integral electrode 202, an integral first local amplifier 204, and an integral second local amplifier 206. In particular, and as shown, each electrode assembly 200 in this example includes an electrode 202 and amplifier 204, 206 co-located with each other, such that the amplification electronics 204, 206 are integrated into each electrode assembly 200. Each electrode assembly 200 may further include an A/D converter 208 and an I/O port 210. Each electrode assembly 200 may be in communication with multiplexer 72 in headset 10 and microcontroller 76 of control box 41. Of course, at least one electrode assembly 200 of headset 10 may serve as a signal electrode while at least one other electrode assembly 200 of headset may serve as a reference electrode, as described elsewhere herein.